

To be presented at the 54th Annual Conference of the International Association for Great Lakes Research (IAGLR) in Duluth MN May 30-June3 2011.

Peder M. Yurista*, John R. Kelly, Samuel E. Miller and Jon VanAlstine
Mid-Continent Ecology Division
National Health and Environmental Effects Research Laboratory
Office of Research and Development
U. S. Environmental Protection Agency
6201 Congdon Boulevard
Duluth, Minnesota 55804 USA
FAX (218)529-5003
*yurista.peder@epa.gov

Lake Michigan Green Bay: nearshore variability

We conducted a high-resolution survey in the nearshore of Lake Michigan's Green Bay at a 15 meter contour using towed electronic instrumentation. The 365 km survey was conducted Aug 18-21, 2010. We also conducted four cross-contour tows. Along the survey tracks we sampled fixed stations (7) to collect calibration data and other parameters not observed by the in situ electronic sensors. With the towed sensor data we constructed a comprehensive representation of spatial variability in the nearshore. We analyzed for potential signals within the variability that may be correlated to landscape characteristics of the adjacent coastal watersheds using multivariate stepwise regressions. The correlation to landscape character explained a large amount of the variation in specific conductivity, beam attenuation, fluorescence, and NO_3^- (r^2 ; 0.84, 0.78, 0.74, and 0.40 respectively). The survey provided an overview of variability in the nearshore of Green Bay Lake Michigan. *This abstract does not necessarily reflect USEPA policy.*